

Take Care of Our Air.

October-November 2004

Staff Hints

The P2 Corner

Environmental Public Health exists to protect human health and the environment. Our mission is based on the philosophy that people cannot be healthy if the environments in which they live or work are unsafe or unhealthy. We embrace the concept of Pollution Prevention (P2): stop pollution before it occurs through wise purchasing and use practices.

Staff members have submitted some of their ideas about how businesses and individuals can reduce risk or hazardous materials at work and in the home.

William B. Lyons, **CHMM**

Environmental Health Specialist II



In addition to reducing the amount of hazardous materials a business has on hand, the main way a business can reduce risk to the environment is to install secondary containment. Secondary containment is any barrier that is

large enough to hold all the material on site if the primary container (such as a storage tank) leaks. There are many shapes and sizes of spill pallets, spill racks, cabinets, socks, and booms.

The biggest benefit of secondary containment is the reduced cost of clean up and remediation from possible pollution caused by the spilled product. By keeping materials from running away to soils or drains businesses can protect the environment. They can also recover the product and possibly still use it.

Use less toxic materials in parts cleaning. Chlorinated solvents are heavily regulated and have great potential for catastrophic clean up costs should the solvents be released into the environment. They are Dense Non Aqueous Phase Liquids (DNAPL). They sink in water and would greatly harm any underground or surface water sources. Steam cleaners, sonic cleaners, and water-based cleaners are great alternatives. A little elbow grease and sand blasting media can usually get the stubborn or hard-to-reach spots.

Businesses located in vulnerable areas near water ways, creeks, streams, ponds, lakes wetlands, and

residential areas need to plan for a worst case scenario release. They should plan on how to contain and prevent the release. This may involve changing chemical stock, modifying containment, or changing the hours of operations that have the potential for hazardous releases. Another key is to educate employees on what to do in case of a spill. It is vital to clean it up quickly or alert management of the spill so that it can be cleaned up properly and promptly by trained professionals.

Beth Mann

*Environmental Health
Specialist II*



Buy less toxic: read the label or study the Material Safety Data Sheet (MSDS). Study alternative products and processes. Talk to others in the industry to find out what works.

Gary R. Bergstrom, Jr.

Environmental Health Specialist I



Provide all employees with some sort of safety manual. Even if an abbreviated version was provided to employees at orientation, it might help.

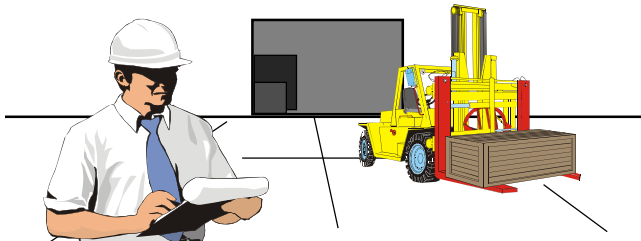
Reducing waste/pollution prevention: provide better orientation/training on how to save and organize documents digitally so less printing is required.



Please circulate this issue among your staff and coworkers.

Toxic Reduction

In order to keep workers safe, you need to purchase the least hazardous or least toxic materials to do the job. Material Safety Data Sheets (MSDS) and product labels are required by law to indicate the contents, risks



SIGNAL WORDS

Hazardous product labels and MSDSes list the main hazards. These warnings include “flammable,” “causes burns to skin and eyes,” or “vapor harmful.” Key words to look for are called “signal words.” They indicate the toxicity of the product. Buy the product that has the safest or lowest level of hazard that will do the job.

- ⊙ **No word:** if the label contains no signal word or special warning, or if it explains that you can use water or soap and water in clean up, the product is safe to use. This is the lowest level of hazard.
- ⊙ **Caution:** slightly toxic. A product with this signal word on the label is not as safe as the first product but it is safer to use than products with any other signal word.
- ⊙ **Warning:** moderately toxic. This product is more hazardous than one with “caution” on the label.
- ⊙ **Danger:** highly toxic, corrosive or extremely flammable.
- ⊙ **Poison:** highly toxic. This is the highest level of hazard.



posed, safe handling practices, and safe disposal methods of materials and products. Certain words and warnings are used. These words have very specific and descriptive meanings.

HAZARDOUS PRODUCTS

Products are considered hazardous if they are:

- ⊙ **Flammable or combustible:** can be easily set on fire.
- ⊙ **Explosive or Reactive:** can explode if exposed to heat, shock, or pressure.
- ⊙ **Corrosive:** can cause a chemical action that burns or destroys skin or materials.
- ⊙ **Toxic:** can cause injury or death through ingestion, inhalation, or skin absorption.

The words “natural” or “organic” do not indicate a safe product. A product labeled “all natural ingredients” can still contain hazardous materials.

MINIMIZE YOUR RISKS

- ⊙ If you don’t need it, don’t buy it.
- ⊙ Read the label; try to identify and buy the least toxic product.
- ⊙ Buy the right product for your task.
- ⊙ Buy only the amount you need.
- ⊙ Use products according to label directions; more is not necessarily better.
- ⊙ Use products completely if it is safe to do so. If you don’t have to store it—if you don’t have it on hand—it cannot hurt you.
- ⊙ If you store potentially hazardous products, keep them in the original containers.
- ⊙ Recycle items such as used oil or batteries.

Spills Happen

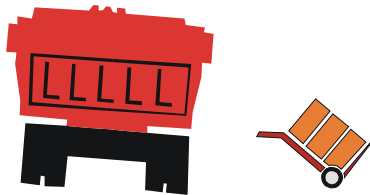
Nobody can foresee the future. However, you can usually count on certain things happening. For example, if your business works with or stores hazardous materials, it is not a question of *if* a spill happens; it is a matter of *when* a spill happens. If you plan now, you will be better prepared to handle the situation when the unforeseen happens.

BEFORE THE INCIDENT

Keep a complete inventory of the materials your business has on hand. Store all Material Safety Data Sheets (MSDS) in one easily accessed location. These sheets should be stored where responders can get to them without having to enter a contaminated area. MSDSes will help responders know what is on site and how to deal with it.

Know what could happen. In some areas of Lancaster County, flooding is a serious concern. Tornadoes are a threat at certain times of the year throughout the county. Every business is vulnerable to fire or accidental mishandling of materials. If your business is on a highway or next to a railroad line, collisions from vehicles or train derailments are possible threats.

Accidental spills are most likely to happen when someone is moving a drum of material from one place to another—from a truck to storage or from storage to another place in the business. A spill is also possible when filling smaller containers from larger storage drums or transport vehicles (such as a truck or train car). However, if the storage container is old or poorly manufactured, it can leak and cause a hazardous release even when it is just sitting there.



Knowing when spills are most likely to happen, you can take precautions to train employees to be especially careful at such times. Inspect all storage containers frequently (perhaps even monthly) for leaks, cracks, or odors (which can indicate a leak). Replace malfunctioning containers.

Have a written plan and practice the plan. Copies of the written plan should be kept in well-known and



easily accessed areas. These copies should be in a area that will not be impacted by a spill. Keeping identical copies in several locations will ensure the plans are available whenever needed. Train employees on what to do, what not to do, and whom to notify in the event of a spill or

other accident. Work closely with emergency responders to identify steps you should take. Employees should know the alarms and how to react when they hear them.

Establish clearly identified assembly or safe areas. These should be part of the plan you've written and practiced. By having employees gathered at one or two designated areas you can ensure that everyone is accounted for and is out of harm's way.

DURING THE INCIDENT

A qualified individual must determine if the spill is small enough that staff can clean it up on site. This individual will usually be a safety officer or supervisor. If the spill can be safely cleaned up by staff, then a team with proper safety equipment and training should isolate the area and take the steps described in the MSDS for that material.

If there is any doubt about the team's ability to clean up the spill safely and completely, the area should be vacated. **Call 911 immediately.** The dispatcher will contact the local fire department, the Lincoln-Lancaster County Health Department, and local law enforcement as needed. The safety supervisor should stay on site (but in a safe area) to answer responders' questions.

Stay out of the way of the responders. Stay out of the hazardous area, appropriately called the hot zone. Make sure that all employees are accounted for. Keep them upwind of the area and a safe distance away in the designated safe areas.

Your Feedback Needed

The purpose of this newsletter is to help business owners, managers, and employees protect themselves, their work places, and our overall quality of life. By providing you with information you can use to reduce hazards at work and in the home, we hope to keep you healthy and safe.

Our philosophy is prevent pollution before it starts. Pollution prevention is based on wise purchasing, reuse of materials and containers, and recycling what cannot be reused. Treatment and disposal are the last two steps and should be taken only when all other options have been exhausted.

To continue to serve you, we need information from you. We would like to know what articles or what types of articles have been most helpful to you. Are there topics you'd like to see us present? How can we better meet your needs in these areas?

In addition, if you have success stories—things that have worked for you in reducing waste, protecting employee health, making your work place and our environment safer—that you would like to share with others, we would love to hear about those and pass them along to help others protect human health and the environment. If you have questions about environmental protection or regulations you'd like to have answered by Lincoln–Lancaster County Health Department (LLCHD) Staff, we would like to hear from you.

Share your suggestions, questions, or concerns with:

Phil Rooney
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Lincoln, NE 68510
prooney@ci.lincoln.ne.us

UNEXPECTED

(CONTINUED FROM PAGE 3)

There will be one person in charge of the activities of the responders. This official is the *Incident Commander*.

All employees must obey the Incident Commander's instructions or those of the other responders operating under the control of the Incident Commander. No one should enter the hot zone unless the Incident Commander indicates that it is safe to do so.



Some spills will require that employees undergo decontamination procedures, or receive medical check ups or treatment. No one should leave the site unless he or she has been cleared by the appropriate authority. Authorities will provide instruction about cleaning or disposing of clothing or other contaminated materials.

By preparing for a disaster now, you can reduce the damage the disaster causes. Most illnesses or injuries occur because people remain in contaminated areas or panic during an emergency.



Professional Certifications

M.P.A.—Master of Public Administration

R.E.H.S.—Registered Environmental Health Specialist

C. H. H. M.—Certified Hazardous Materials Manager

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<http://www.ci.lincoln.ne.us/city/health/envIRON/pollu/>

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For more information or for P2 technical assistance, call 441-8040.

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